

REMARKS

Status of the Claims

Claims 1-15 are currently pending in the application. Claims 5 and 6 stand rejected. Claims 1-4 and 7-13 are withdrawn as being drawn to a non-elected invention. Claim 5 has been amended as set forth herein without prejudice or disclaimer. New claims 14 and 15 are presented herein. No new matter has been added by way of the present amendments. Specifically, the amendment to claim 5 is supported by the specification at, for instance, page 13, lines 9-17, page 14, lines 6-8 and page 11, lines 12-14. New claims 14 and 15 are supported by the original claims and specification, for example at claim 1 and page 13, lines 9-18. New claims 16-18 are supported by original claim 5. Reconsideration is respectfully requested.

Interview

The Applicants and Applicants' representative thank the Examiner for kindly agreeing to discuss the present application during an interview on December 20, 2006. During the interview, the objections to the drawings and specification were discussed. The Examiner assured Applicants that after review of the drawings, there were no objections and that should Applicants traverse the objection to the drawings, the objection would be withdrawn. The Examiner also assured Applicants that the present application would not be abandoned if the objection were traversed. Furthermore, the Examiner stated that since Applicants' elected claims were not directed to "prevention" or "preventing," the objection to the specification would also be withdrawn if traversed. These conclusions are reflected in the Interview Summary Sheet of record in the present application and dated December 20, 2006.

Information Disclosure Statement

The Examiner has provided an initialed form acknowledging that the references provided in the Information Disclosure Statements (IDS) of March 31, 2005, March 20, 2006 and April 21 2006 have been considered. (*See*, Office Action of September 25, 2006, at page 14, hereinafter, "Office Action"). The Examiner notes that only the Abstracts of some of the references have been considered. Applicants submit herewith a Letter submitting the full disclosures of some of

the references that are marked with the words "Abstract only" in the IDS. Consideration of the entire reference is requested.

Objections to the Drawings

The Examiner objects to the Drawings in the specification due to a lack of headings. Upon further discussion with the Examiner concerning the objection and the drawings, the Examiner agreed to withdraw this objection. (*See*, Office Action, at page 14). Nonetheless, Applicants respectfully traverse the objection. Applicants point out that all drawings as originally submitted recite figure numbers. Additionally, the specification provides adequate description of the drawings in the "Brief Summary of the Figures" section beginning at page 10 of the specification. Furthermore, Applicants submit that the Rules do not require drawings to recite headings, especially where the drawings are adequately described in the specification.

Reconsideration and withdrawal of the objection to the drawings are respectfully requested.

Objections to the Specification

The Examiner objects to the specification for reciting a title that is not descriptive and for reciting the words "prevention," "prevented," "preventing," and "prevent." (*Id.* at page 15). Although Applicants do not agree that the title is not descriptive, to expedite prosecution, the title has been amended herein to recite, "A Food Beverage or Feed For the Promotion of Osteogenesis Comprising Umbelliferae, Liliaceae or Compositae Plant Species," as kindly suggested by the Examiner. No new matter is introduced into the specification by way of this amendment to the title. Thus, entry of the amendment to the title is respectfully requested.

Regarding the objections to the specification concerning various forms of the word "prevent," Applicants traverse. Applicants submit that no such amendment to the specification is warranted, especially since no grounds for the objection are provided. Applicants submit that removing these terms from the specification could be considered introduction of new matter into the specification. The Rules explicitly preclude introduction of new matter into the specification.

Upon further discussions with the Examiner regarding the objection to the specification, it was determined that since these terms do not appear in the elected claims, the objection is moot.

Thus, reconsideration and withdrawal of the objections to the specification are respectfully requested.

Rejections Under 35 U.S.C. § 112, Second Paragraph

Claims 5 and 6 stand rejected under 35 U.S.C. § 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. (*See*, Office Action, at page 16). Applicants traverse the rejection as set forth herein.

The Examiner states that the metes and bounds of claim 5 are “uncertain” because it recites the phrase “the food, beverage or feed comprises a processed product derived from a plant.” The Examiner further states that it is not certain what the identity is of the processed product. Although Applicants do not agree that claim 5 is indefinite, to expedite prosecution, claim 5 has been amended, without prejudice or disclaimer, to recite, in part, “the food, beverage or feed comprises a water extract derived from at least one plant selected from the group consisting of.” Thus, at least as amended, claim 5 is definite because claim 5 clearly states that the food, beverage or feed comprises a water extract, not a “processed product.” The term “processed product” has been removed from claim 5. This amendment is supported in the original specification at, for instance, page 13, lines 9-17 and page 14, lines 6-8.

Additionally, it is submitted that new claim 14 is also definite because, although claim 14 recites “processed product,” claim 14 also further defines the “processed product” as “at least one product selected from the group consisting of an extract, a powder, a squeezed juice, a pulverized product, a chemically processed product and an enzymatically processed product.” This claim, and particularly this language, is supported in the original specification at, for instance, page 13, lines 9-18.

Since no independent reasoning is provided for the rejection of dependent claim 6, claim 6 is believed to be definite for, *inter alia*, depending from a definite base claim, amended claim 5.

Reconsideration and withdrawal of the indefiniteness rejection of claims 5 and 6 are respectfully requested.

Rejections Under 35 U.S.C. § 102(b)

Claims 5 and 6 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Okukawa, JP 2001-178407 (hereinafter referred to as “Okukawa”). (*See*, Office Action, at page 16). Applicants traverse the rejection as set forth herein.

The Examiner states that Okukawa discloses “a beverage comprising *Angelica keiskei* powder rich in vitamin K, wherein the food supplies essential vitamins, such as D and K, and increases calcium absorption and improves calcium deposition in bones.” However, as already discussed, above, with respect to the indefiniteness issues, claim 5 has been amended to recite a “water extract” of a plant. Okukawa does not disclose any food, beverage or feed containing a water extract of a plant.

Furthermore, Okukawa discloses that *Angelica keiskei* powder is added to the health food to serve as a natural vitamin K source. (*See*, Okukawa, at claim 2 and paragraph [0006]). However, it is known in the art that vitamin K has only extremely limited water solubility. (*See*, Petrosian et al., *Amino Acids*, 19:409-421 (2000), complementary copy attached hereto for the Examiner’s consideration, at page 410, lines 28-30). Therefore, one of ordinary skill in the art would not attempt to make a water extract of a plant to obtain vitamin K to supplement any health food and one of ordinary skill in the art would also not look to the disclosure of Okukawa to obtain the presently claimed invention, especially as recited in amended claim 5.

Additionally, it is noted that Okukawa also does not disclose enhancing bone morphogenetic protein production using a water extract of a plant, as presently claimed. It is known that the biochemical mechanism of vitamin K dependent enhancement of calcium deposition in bones results in accumulation of calcium in osteoblasts or bone cells. However, the present specification discloses that BMP promotes differentiation from preosteoblasts, such as mesenchymal stem cells, to osteoblasts. Thus, the claimed enhancement of BMP production promotes the formation of osteoblasts. This effect is upstream of the biochemical mechanism disclosed in Okukawa. That is, enhancement of BMP promoting osteoblast formation occurs

earlier in the biochemical pathway than the disclosed increase in calcium deposition in mature osteoblasts promoted by vitamin K disclosed in Okukawa. Thus, enhancement of BMP is expected to radically treat bone diseases.

Dependent claim 6 is not anticipated as, *inter alia*, depending from a non-anticipated base claim, claim 5.

Reconsideration and withdrawal of the anticipation rejection of claims 5 and 6 are respectfully requested.


CONCLUSION

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Thomas J. Siepman, Ph.D, Reg. No. 57,374 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

Dated: December 26, 2006

Respectfully submitted,

By 

Marc S. Weiner
Registration No.: 32,181
BIRCH, STEWART, KOLASCH & BIRCH, LLP
8110 Gatehouse Road
Suite 100 East
P.O. Box 747
Falls Church, Virginia 22040-0747
(703) 205-8000
Attorney for Applicant

Attachments: Copy of Petrosian et al., *Amino Acids*, 19:409-421 (2000)